UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/590,415	10/20/2006	Nicolas Popp	026970-003210US	7016

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NIGH, JAMES D

ART UNIT	PAPER NUMBER
3685	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/590,415	POPP, NICOLAS
	Examiner	Art Unit	
	JAMES D. NIGH	3685	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>23 August 2006 and 20 October 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-9</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-9</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>23 August 2006</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____ .

DETAILED ACTION

1.   This communication is in response to application filed on 23 August 2006 and 20

October 2006. Claims 1-9 are presented for examination on the merits.

Priority

2.   Applicant's claim for the benefit of U.S. provisional patent application 60/546194

filed 23 February 2004 under 35 U.S.C. 119(e) is acknowledged.

Information Disclosure Statement

3.   The information disclosure statement (IDS) was submitted on 23 August 2006.

The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the

information disclosure statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

4.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   **Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention**

is directed to non-statutory subject matter.

6.   Claim 1 recites a method for calculating a one time password but does not

positively recite a particular machine as performing the method, nor is a physical

transformation occurring; therefore the claim is ineligible under 35 U.S.C. § 101. See

"Interim Examination Instructions for Evaluating Subject Matter Eligibility Under 35

U.S.C. §101" issued 24 August 2009. The rejection may be overcome by reciting

physical structure as performing one of the method steps (such as "concatenating, by a

computer, a secret with a count").

7.   Claims 2 and 6 recite methods for authenticating a request for access to a

resource but do not positively recite a particular machine as performing the method, nor

is a physical transformation occurring; therefore the claim is ineligible under 35 U.S.C. §

101. In the broadest reasonable interpretation the authentication server could be extra-

solution activity. See "Interim Examination Instructions for Evaluating Subject Matter

Eligibility Under 35 U.S.C. §101" issued 24 August 2009. The rejection may be

overcome by reciting physical structure as performing one of the method steps (such as

"retrieving, by the authentication server...").

8.   Claims 3-5 are also rejected as being dependent upon claim 2

9.   Claims 7-9 are also rejected as being dependent upon claim 6.

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

11.   **Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Matyas Jr. et al. (U.S. Patent 5,953,420, hereinafter referred to as Matyas) in view

of Newcombe (U.S. Patent PG Publication 2003/0172269, now U.S. Patent

7,392,390, hereinafter referred to as Newcombe).

12.   As per claim 1

        Matyas explicitly discloses concatenating a secret with a count (Abstract, 2:29-

49, 5:17-31, 5:39-59)

Matyas explicitly discloses the count number that increases monotonically (Figure 4, 5:17-25)

Matyas explicitly discloses the count number that increases monotonically with the number of One Time Passwords generated and increases monotonically at the authentication server with each calculation at the authentication server of a One Time Password (Figure 4, 5:17-25)

Matyas does not explicitly disclose a token or where the secret is uniquely assigned to token and is shared between the token and an authentication server. Newcombe teaches a token and a method of assigning a secret to a ticket (similar to a token) (0058, 0064-0066, 0068, 0072, 0091)

It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the method for establishing an authenticated shared secret value between a pair of users of Matyas with the method for binding Kerberos style authenticators to single clients of Newcombe for the purpose of enabling improved authentication in a distributed environment.

13.   As per claim 2

Matyas explicitly discloses receiving a request for authentication (2:35-57, 5:1-10, 5:46-59, 7:25-37)

Matyas explicitly discloses concatenating a secret with a count (Abstract, 2:29-49, 5:17-31, 5:39-59)

Matyas explicitly discloses calculating the one time password based on count values and the secret (Figure 4, 5:17-25)

Matyas explicitly discloses retrieving a count (5:46-59)

Matyas explicitly discloses retrieving a secret (6:62-65)

Matyas explicitly discloses comparing the calculated one time password with the

received one time password (6:45-61)

Matyas explicitly discloses that if the calculated and received password match

that the request is authenticated (6:45-61).

Newcombe teaches a serial number uniquely associated with a token (IP

address, 0025)

Newcombe teaches a personal identification number associated with a user

(password, 0057-58, 0065-0067)

Newcombe does not explicitly teach incrementing the count and recalculating;

However Newcombe teaches a window of acceptable values for time with which

recalculation can occur and authenticate the client (0059, 0068, 0070, 0097). Thus a

predictable result (*KSR International Co. v. Teleflex Inc.,* 82 USPQ2d 1385 (U.S. 2007))

of Matyas and Newcombe would be to substitute the count value for the time value,

perform the incrementing of the count and recalculate to determine if the count was

acceptable for the purpose of enabling improved authentication in a distributed

environment.

14.   As per claims 3 and 7

Newcombe teaches an SHA-1 hash function (0029-0030, 0068, 0103)

15.   As per claims 4 and 8

Newcombe teaches a symmetric key (0028, 0032).

16.   As per claims 5 and 9

Newcombe teaches "an acceptable time window" which would encompass a

predetermined number of times for authentication (0059, 0068, 0070, 0097).

17.   As per claim 6

Matyas explicitly discloses receiving a request for authentication (2:35-57, 5:1-

10, 5:46-59, 7:25-37)

Matyas explicitly discloses concatenating a secret with a count (Abstract, 2:29-

49, 5:17-31, 5:39-59)

Matyas explicitly discloses calculating the one time password based on count

values and the secret (Figure 4, 5:17-25)

Matyas explicitly discloses retrieving a count (5:46-59)

Matyas explicitly discloses retrieving a secret (6:62-65)

Matyas explicitly discloses comparing the calculated one time password with the

received one time password (6:45-61)

Matyas explicitly discloses that if the calculated and received password match

that the request is authenticated (6:45-61).

Newcombe teaches a username (user account) associated with a user (0058,

0060, 0062-0063, 0066)

Newcombe teaches a personal identification number associated with a user

(password, 0057-58, 0065-0067)

Newcombe does not explicitly teach incrementing the count and recalculating;

However Newcombe teaches a window of acceptable values for time with which

recalculation can occur and authenticate the client (0059, 0068, 0070, 0097). Thus a predictable result (*KSR International Co. v. Teleflex Inc.,* 82 USPQ2d 1385 (U.S. 2007)) of Matyas and Newcombe would be to substitute the count value for the time value, perform the incrementing of the count and recalculate to determine if the count was acceptable for the purpose of enabling improved authentication in a distributed environment.

Please note:

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Applicant(s) are reminded that optional or conditional elements do not narrow the claims because they can always be omitted. See *e.g.* MPEP §2106 II C: "Language that suggest or makes optional but does not require steps to be performed or does not limit a claim to a particular structure does not limit the scope of a claim or claim limitation. [Emphasis in original.]"; and *In re Johnston,* 435 F.3d 1381, 77 USPQ2d 1788, 1790 (Fed. Cir. 2006) ("As a matter of linguistic precision, optional elements do not narrow the claim because they can always be omitted.").

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES D. NIGH whose telephone number is (571)270-5486. The examiner can normally be reached on Monday-Thursday 6:45-5:15.

     If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Calvin L. Hewitt II can be reached on 571-272-6709. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

     Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JAMES D NIGH/
Examiner, Art Unit 3685

    /Calvin L Hewitt II/
    Supervisory Patent Examiner, Art Unit 3685